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Electronic Version v18

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Title of Invention

POWER AMPLIFIER CIRCUITRY AND METHOD

Application Number:

10/812858

Confirmation Number:

3449

First Named Applicant:

Susanne Paul

Attorney Docket Number:

SIL.P0075

Art Unit:

2817

Examiner:

Michael B. Shingleton

Search string:

(4772856 or 5023566 or 5118997 or 5274341 or 5327337 or 5612647 or 5623231 or 5867061 or 5880635 or 5942946 or 5955926 or 5969582 or 5974041 or 6137273 or 5291123 or 4893030 or 4808907 or 6167134 or 6181207 or 5648743 or 5343162 or 4857865 or 5450036 or 5420537 or 5625205 or 5726603 or 6198347 or 6232634 or 6208549 or 6222788 or 6147511 or 4649467 or 5742205 or 5477188 or 6011438 or 6157258 or 5831331 or 6274937 or 6319829 or 6208875 or 5604383 or 6323735

or 5973368 or 6133793 or 6016075 or 4590436 or 6384540 or 4021751).pn

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
151	1	4772856	1988-09-20	Nojima et al.			1
1	2	5023566	1991-06-11	El-Hamamsy et al.			
	3	5118997	1992-06-02	El-Hamamsy et al.			
Π	4	5274341	1993-12-28	Sekine et al.			
П	5	5327337	1994-07-05	Cripe			
	6	5612647	1997-03-18	Malec			
П	7	5623231	1997-04-22	Mohwinkel et al.			
П	8	5867061	1999-02-02	Rabjohn et al.			
	9	5880635	1999-03-09	Satoh			
	10	5942946	1999-08-24	Su et al.			
	11	5955926	1999-09-21	Uda et al.			
	12	5969582	1999-10-19	Boesch et al.			
	13	5974041	1999-10-26	Kornfeld et al.			
	14	6137273	2000-10-24	Bales et al.			
	15	5291123	1994-03-01	Brown			
	16	4893030	1990-01-09	Shearer et al.			
	17	4808907	1989-02-28	Main			

	11-	1-01	r	+	وليا)	ch	、大
	18	6167134	2000-12-26	Scott et al.				
	19	6181207	2001-12-30	Chevallier et al.	1	1	•	A
1	20	5648743	1997-07-15	Nagaya et al.		1		
	21	5343162	1994-08-30	Davis				
	22	4857865	1989-08-15	Berman et al.				
	23	5450036	1995-09-12	Nishioka et al.		1		
	24	5420537	1995-05-30	Weedon et al.				
	25	5625205	1997-08-29	Kusama				
	26	5726603	1998-03-10	Chawla et al.				
	27	6198347	2001-03-06	Sander et al.				
	28	6232634	2001-05-15	Wu et al.	•			
	29	6208549	2001-03-27	Rao et al.				
	30	6222788	2001-04-24	Forbes et al.				
	31	6147511	2000-11-14	Patel et al.				8
	32	4649467	1987-03-10	Vesce et al.				
	33	5742205	1998-04-21	Cowen et al.				
	34	5477188	1995-12-19	Chawla et al.				
	35	6011438	2000-01-04	Kakuta et al.				
	36	6157258	2000-12-05	Adishian et al.				
	37	5831331	1998-11-03	Lee				
	38	6274937	2001-08-14	Ahn et al.				
	39	6319829	2001-11-20	Pasco et al.				
	40	6208875	2001-03-27	Damgaard et al.				
	41	5604383	1997-02-18	Matsuzaki	2			
	42	6323735	2001-11-27	Welland et al.	ă			
	43	5973368	1999-10-26	Pearce et al.				
	44	6133793	2000-10-17	Lau et al.	,			
	45	6016075	2000-01-18	Hamo	÷			
	46	4590436	1986-05-20	Butler et al.	i			
	47	6384540	2002-05-07	Porter, Jr. et al.		T		
des	48	4021751	1977-05-03	Suzuki	-			

Remarks

Note: Remarks are not for responding to an office action.

A paper IDS is being submitted concurrently with this electronic IDS.

Signature

Examiner Name	Date
JHINGLETAN	5-6-06

FORM PTO-I	449	OIRE	ATTY, DOCKET NO.	SIL P0075	SERIAL NO.	10/812,	858 ———	
	1_1	YOV 1 0 2005 &	APPLICANT	Paul et al.				
	A TO	2005	FILING DATE	3/30/2004	GROUP	2817		
EFERENCE	DESIG	Removed !	J.S. PATENT DOCU	MENTS			•	
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME		CLAS	s	SUB CLASS
BJ		20050052235	03/10/05	Paul et al.				
1		20050052236	03/10/05	Paul et al.				
B		20050052237	03/10/05	Paul et al.				<u> </u>
			<u>.</u>					
			<u></u>			-		
_			•	-				
_								
		•	FOREIGN PATE	ENT DOCUMENTS				
	E .	CUMENT UMBER	DATE	NAME	CLAS	S SUB CLAS	TRAN	SLATION
	"	OWIDER		·		CLAS	YES	NO
L	WO	00/16492	03/23/00	Macnally et al.	1	1		L
	wo	98/37627	08/27/98	Ledenev et al.				•
	EC	399561	11/28/90	Clanahan et al.				•
4	DE	4419318	07/12/95	Grunecker et al.		1		L
		OTHER REFER	ENCES (including A	uthor, Title, Date, Pert	inent Pag	es, etc.)		
				- A new class of high-ef			ended s	vitching
	1	oower amplifiers,	"IEEE Journal of Soli	id State Circuits, vol. SC	2-10, No. 3	June 197	5, pp. 16	8-176.
>								
•		Makihara Chihir	et al. "The Possibilit	y of High Frequency Fu	nctional C	Ceramics Su	ıbstrate".	
	l i	nternational Smp	osium on Mulilayer E	lectronic Ceramic Devic	es, 5/5/98	in Cincina	ti, Ohio.	

ATTY. DOCKET NO. APPLICANT Paul et al. FILING DATE 3/30/2004 GROUP 2817

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS
NBI	4,067,057	1/3/78	Taddeo	•	
	4,451,802	5/1984	Koinuma FEB 0 3 700c	2	
	4,590,436	5/20/86	Butler 3 2006)	
	4,670,832	6/2/87	Park Park	7	
	4,689,819	8/25/87	Killion		
	4,689,819 Rexam, certificate	8/13/96	Killion		
	4,691,270	9/1/87	Pruitt		
	4,736,284	4/5/88	Yamagishi		
	5,144,133	9/1992	Dudley et al.		
	5,276,910	1/4/94	Buchele		
	5,311,150	5/1994	Engbretson et al.		
	5,768,112	6/16/98	Barrett		
	5,771,166	6/23/98	Lim		
	5,939,931	8/17/99	Noro		
1	6,016,075	1/18/00	Hamo		
	6,072,362	6/6/00	Lincoln		
	6,147,886	11/14/00	Whittenbreder		
	6,300,827	10/2001	King		
	6,355,531	3/2002	Mandelman et al.		1
/R \	6,384,540	5/7/02	Porter		-

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLAS	TRANS	LATION
						YES	NO

OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

Webster's Ninth New Collegiate Dictionary, copyright 1991, pages 384 and 1096, definitions of "drive" and "signal."

ALETON DATE CONSIDERED

FORM PTO-144	3106	ATTY, DOCKET NO.	SIL.P0075	SEI	RIAL NO.	10/812,85	8	
		APPLICANT	Paul et al.					
	•	FILING DATE	3/30/2004	GR	OUP 2	817		
EFERENCE DI	ESIGNATION I	U.S. PATENT DOC	UMENTS					
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	. N	AME		CLASS		SUB LASS
		FOREIGN PAT	TENT DOCUMEN	TS				
	DOCUMENT NUMBER	DATE	NAM	E	CLASS	SUB	TRAN	LATIO
	NUMBER					CLAS	YES	NO
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				1		<u> </u>		
BS	Broskie, The A Journal.	RENCES (including ccordion Amplifier	-A new single-er	nded topo	ology, pub		001, Tub	e Cad
BS	Broskie, The A Journal. Billings, Switch	ccordion Amplifier	-A new single-er	nded topo	ology, pub	olished 20	001, Tub	e Cad
BS	Broskie, The A Journal. Billings, Switch Grant and Gow	ccordion Amplifier	Handbook McG	raw-Hill	ology, pub 1999. s, Wiley	lished 20		
BS	Broskie, The A Journal. Billings, Switch Grant and Gowa Cuk and Middle	ccordion Amplifier nable Power Supply ar, Power MOSFE	Handbook McG	raw-Hill plication	ology, pub 1999. s, Wiley	olished 20	eslaco I	
BS	Broskie, The A Journal. Billings, Switch Grant and Gowa Cuk and Middle Hamill, Class D Specialist Confe	ar, Power MOSFE ar, Power MOSFE ar ar and Reserved to Corcuits and System	Handbook McG Ts Theory and Ap	raw-Hill plication ower Cor	1999. s, Wiley resion, Pov	olished 20 1989.	eslaco I	983.

	•	7	/3	10	4
•					
		EODM D	~ 140		-

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FORM PYO-14	149	ATTY. DOCKET NO.	SIL P0075	SERIAL NO.	10/812,858	3	
		APPLICANT	Paul et al.				
		FILING DATE	3/30/2004	GROUP 2	2817		
REFERENCE I	DESIGNATION	u.s. patent doci	UMENTS			-	-
EXAMINER INITIAL	DOCUMENT NUMBER	DATE NAM		AME	CLASS		SUB LASS
		EODEICH DA	ENT DOCUMENT	re			
			ENT DOCUMENT	AT	T aven	770.433	N ATION
	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLAS	YES	NO
-1		-					
		,					
SJ	Circuits and Sy pp. 1228-1239. Koizumi, Sekiy Inverter and Cl. the Rectifier), I Applications, V	act Analysis of Classtems - I: Fundamera, Matsuo, Mori anass E Rectifier Usin EEE Transactions of Col. 48, No. 1, Jan. 2 and Jozwik, DC/DC	d Sasase, Resonan g Thinned-Out Mo in Circuits and Sys 2001, pp123-126	pplications, Vol. at DC/DC Converethod (Deleting Stems - I: Fundam	46, No. 1 ter With (Some of the	Class Die Pulses	1999, E s to
	and Class E Zei Vol. 36, No. 11 Kazimierczuk a	o-Current-Switchin, Nov. 1989, pp. 14 nd Szaraniec, Class Electronic Systems,	g Rectifier, IEEE 85-1488. D-E Resonant DC	Transactions on C/DC Converter,	Circuits and Circu	nd Syste	ms,
	Kazimierczuk,	Class-E Amplifier w			er, IEEE 7	ransact	ions
	on Industrial El	ectronics, voi. 37, 1	чо. 2, Арг. 1990, <u>]</u>	pp. 160-166.			

EORM PTO MAS ATTY. DOCKET NO

2 SUL BATS HERETS

FORM PTO-144	9	ATTY, DOCKET NO.	SIL.P0075	SERIAL NO.	10/812,85	8	
		APPLICANT	Paul et al.				~
		FILING DATE	3/30/2004	GROUP	2817		
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REFERENCE DI	ESIGNATION U	J.S. PATENT DOCUM	MENTS				
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		FOREIGN PATE	NT DOCUMENTS	3		•	
	DOCUMENT	DATE	NAME	CLA	SS SUB CLAS	TRANS	LATION
	NUMBER				CLAS	YES	NO
							
· · · · · · · · · · · · · · · · · · ·	OTHER REFER	RENCES (including A	other Title Date I	Partinent Pan	es etc)		
<u> </u>		-					
		lercq, 12V Σ-Δ Class ted Circuits Conferer		V CMOS Te	chnology, II	EEE 199	'5
D,							
ן נט	<u> </u>		NOO D'C	100-31-	· · · · · · · · · · · · · · · · · · ·		Lile 2
		e, Design Issues in C Vol. 34, No. 5, May 1			ors, ieee jo	urnai oi	20110-
	Tsai and Grav	A 1.9-GHz, 1-W CM	OS Class-E Power	r Amplifier f	or Wireless		
	Communication	s, IEEE Journal of S	olid-State Circuits	, Vol. 34, No	o. 7, July 19	99, pp. 9	62-
	970.						
	Boonyaroonate	and Mori, Analysis a	nd Design of Clas	s E Isolated	DC/DC Con	verter U	sing
	Class E Low dv	dt PWM Synchrono	us Rectifier, IEEF				
	Voi. 16, No.4, J	uly 2001, pp.514-52	1.				
	Broskie, The Ac	cordion Amplifier -	New Single-End	ed Topology	, published	2001, Ti	ibe
	Cad Journal.						
		nd Czarkowski, Reso	nant Power Conve	erters, John V	Viley & Son	s, Inc. 1	995,
	pp. 149-150 & 1	188-189.					
•						······	
		om, Modern DC-To-		Power Conve	erter Circuits	, Van	
B.	ivostrand Keinn	old Company 1985, p	p. 120*127.				
EXAMINER -	DIANIZA		DATE CONSIDE	RED >		_ /	`` \ /_